

P-adic conformal invariance and the Bruhat-Tits tree

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Abstract

It is shown that some Gaussian and non-Gaussian scaling invariant p -adic field theories are invariant under the group of transformations which conserve the p -adic norm of the cross-ratio of any four points. This group can be treated as a p -adic conformal group. It has a continuation on the Bruhat-Tits tree, being an automorphism group of that tree. The models also have tree continuation, in particular the binary correlation function of the tree model is a spherical function. © 1991 Kluwer Academic Publishers.

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Keywords

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